THE MEDICAL FORTNIGHTLY

Vol. XXXVI ST. LOUIS, MONDAY, JULY 26, 1909. No. 2

Papers for the orginal department must be contributed exclusively to this magazine, and should be in hand at least one month in advance. French and German articles will be translated free of charge, if accepted.

A liberal number of extra copies will be furnished authors, and reprints may be obtain at cost, if request accompanies the proof.

Engravings from photographs or pen drawings will be furnished when necessary to elucidate the text. Rejected manuscript will be returned if stamps are enclosed for this purpose.

COLLABORATORS

ALBERT ABRAMS, M. D., San Francisco.
CHARLES W. BURR, M. D., Philadelphia.
S. GROVER BURNETT, M. D., Kansas City.
C. G. CHADDOCK, M. D., St. Louis, Mo.
ARCHIBALD CHURCH, M. D., Chicago.
ARTHUR R. EDWARDS, M. D., Chicago.
FRANK R. FRY, M. D., St. Louis.
RICHARD T. HEWLITT, M. D., London, England.
J. N. HALL, M. D., Denver.
HOBART A. HARE, M. D., Philadelphia.
CHARLES JEWETT, M. D., Brooklyn.
THOMAS LINN, M. D., Nice, France.
FRANKLIN H. MARTIN, M. D., Chicago.
E. E. MORTGOMERY, M. D., Philadelphia.
FRANK P. NORBURY, M. D., Jacksonville, Ill.
FERD C. VALENTINE, M. D., New York.
EDWIN WALKER, M. D., Evansville, Ind.
REYNOLD WEBB WILCOX, M.D., LL.D., New York.
H. M. WHELPLEY, M. D., St. Louis.
WM. H. WILDER, M. D., Chicago, Ill.

LEADING ARTICLES

TOURING THE LANDS WHERE MEDICAL SCIENCE EVOLVED.

FIFTH PAPER.*

ROBERT G. ECCLES, M. D.

[FOR THE MEDICAL FORTNIGHTLY.]

GALLIA TRANSALPINA.

To a vast majority of tourists from America a visit to Transalpine Gaul is the ideal summer excursion, but force of habit and the advertising influences of those interested in personally conducted tours, in which the rates must appear to be low while the profits are substantial, have diverted the stream of travel into a few definite places. Not to have seen Paris, Brussels, Cologne, the Rhine, Gallic Switzerland, and the Riviera has come to mean not to have seen what is popularly considered the best of Europe. So completely has this narrow view come to dominate the opinions of our traveling countrymen that they are constantly overlooking many other equally interesting places in and near to France. Paris, of course, is the Mecca of all transatlantic tourists who take their first trip to that region. But what can we say regarding those who go there again and again yet learn nothing of quaint Normandy nor of equally interesting Brittany. Mont Saint Michel, the most romantic looking, and one of the most interesting places to visit that Europe affords, has no place in their geographic knowledge. Even in name, Andorra, the queerest little republic on our planet, that in its history of over a millenium has seen all of the great nations of Europe and America come into being, is unknown, though nestling within easy reach, in the heart of the Pyrenees. Les Eyzes and its Grottoes, that have given to science more and more definite, information about prehistoric man, than has been obtained from any other part of the earth, few have ever heard of. The Cirque de Gavarnie, which, unfortunately, we had to eliminate from our itinerary because of reaching that part of France over a week behind our time, few Americans ever see. It is the Yosemite of Europe. There is nothing like it in Switzerland if descriptions of those who have seen it are reliable. Its magnificent cascade of 1385 feet in height dwarfs everything of the kind in the Alps. The view from the Pic de Pimene is said to excel that from Pilatus.

While we failed to see this particular beauty-spot we did not fail to visit the one part in all of France of greatest historic and ethnologic interest to Americans and, particularly, to American physicians who have the good fortune to get there. It was in South-Western France that some of the most important events connected with the birth of our nation transpired. It was in this same region that some of the fiercest struggles in behalf of civil and religious liberty occurred. It was here that Islamism received the first decisive blow—a blow from which it never recovered—when the fanatical followers of the Koran were sweeping everything before them and appeared as if destined to conquer the whole earth. They had subdued Spain, passed the Pyrenees and taken possession of all of Southern Gaul when, in A.D. 732, Charles, son of Pepin, as leader of the Franks, completely routed the army of Abdel-Rhaman and killed that Moorish chieftain not far from the town of Poitiers. So overwhelming was the victory that Charles was given

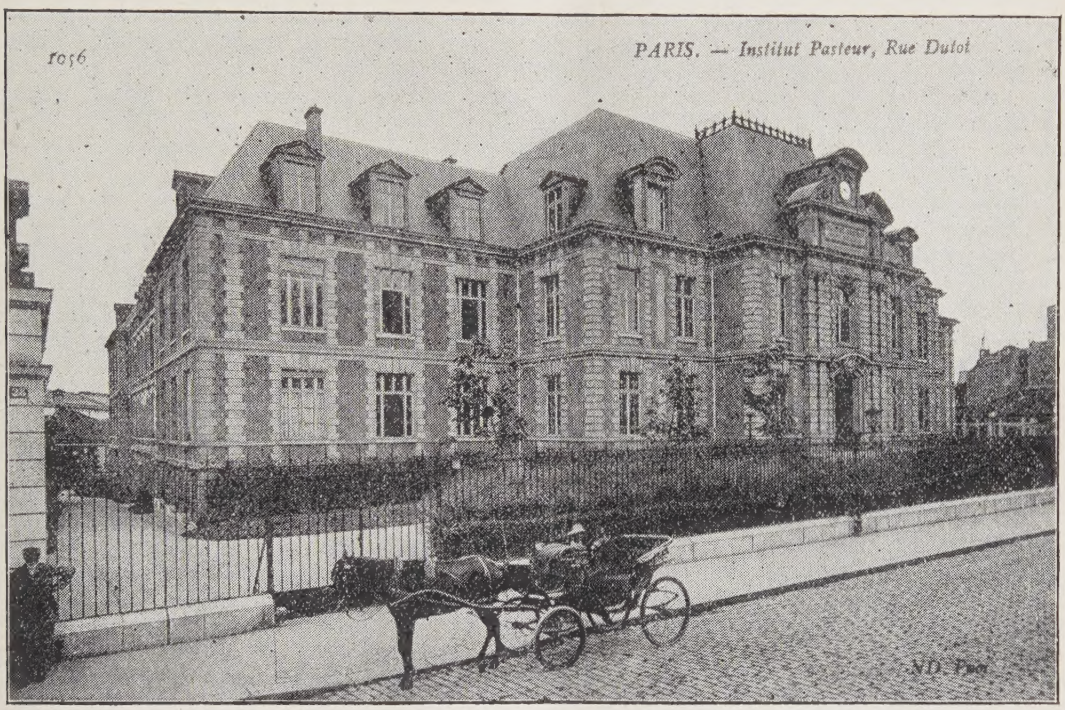
*The first chapter of this series of letters, "Grecian," appeared in the Medical Fortnightly, issue of October 10, 1908; the second chapter, "Christian and Saracen," appeared January 11, 1909; the third, "Medieval and Renaissant," appeared March 10, 1909; the fourth, "Iberia and Lusitania," May 10, 1909.

the name of "Martel," meaning hammer, because he had crushed the Mohammedans as if with a hammer. Gibbon, the historian, says of this battle that "But for it perhaps the interpretation of the Koran would now be taught in the schools of Oxford, and her pupils would demonstrate to a circumcised people the sanctity and truth of the revelation of Mohammed." Following up this successful result Charles Martel continued his attacks upon the various strongholds of the Moors until, by 739, he had driven the last of them back into Spain, consolidated the various little kingdoms of most of Transalpine Gaul, and laid the foundation for the country since known as France. In 737 he destroyed the Moorish stronghold of Maguelone and permitted the Hebrew, pagan, and peaceful Mohammedans, to build an unfortified city near the ruins. To this new city was given the name Montpelier. It is now one of the most interesting towns of South-eastern France. Its famous Place du Peyrou is one of the finest public squares in France. It occupies the highest piece of ground in the region, and one can stand there and enjoy what is, perhaps, one of the most magnificent and comprehensive scenes in any country. It embraces the distant snow-clad Alps, the picturesque rolling Cervennes, the majestic Pyrenees, the beautiful verdure-clad valley of the Rhone, and the blue waters of the Mediterranean Sea. Soon after the city was established a medical school was started, which soon became the most famous in the world. The renown which belonged to Salerno gradually faded as that of Montpelier grew. It became the single beacon light of liberal medical education for France as Padua, at a later date, did for Italy. Among its earliest students of note was Arnold de Villeneuve who, toward the close of the thirteenth century, first produced alcohol and isolated the essential oil of turpentine from pine resin. It was he, too, who first advocated the use of brandy as a remedy. He looked upon it as almost as good as the fabled elixir of life. A generation later and the same school gave us the famous author and surgeon, Guy de Chauliac. His book," The Inventory," is one of the first really valuable surgical works ever published. He, too, gave us the first intelligent description of the symptoms of bubonic plague. When the great epidemic of this disease first overran Europe he was practicing in Avignon where he held the position of physician to Pope Clement VI. He stuck to the city and cared for the sick when the majority of practitioners sought more comfortable quarters, and when even the friends and relatives of the ailing had deserted them. Being taken with the disease himself, he was left for dead, but revived and lived to describe his own experiences therewith. It is quite likely that he had met Petrarch, and he was in Avignon when Madonna Laura died. Attached to the medical department of the University of Montpelier is the oldest botanic garden in North central Europe. Like the still older one at Padua it was started for the purpose of letting medical students have an opportunity of seeing the plants from which the remedies they were expected to prescribe came. The fine villas around Montpelier are, to a considerable extent, occupied by consumptives who choose that as their home, because of its reputed healthfulness. It was in Montpelier that M. Auguste Compte, founder of the Positive Philosophy, that was so often confounded with the Synthetic Philosophy of Herbert Spencer, was born.

Every visitor to Montpelier, who has the time, is sure to go and see such nearby towns as Marsellies, Avignon, Toulon, and Nimes. To see the Riviera—a spot that few travellers through France fail to see—there is no better place from which to start than Marseilles, particularly if aimimg at reaching Italy. Such beauty spots, along the coast, as Cannes, Nice, Monaco, Monte Carlo, and Menton everybody has heard of and need no description, but Grasse—in several ways more attractive than all the rest—is talked less about and often overlooked. Its terraced streets and farms covered with roses, lilies, jasmines, and other beautiful and fragrant flowers, is a sight to delight every one who sees it. Almost the only crop of the region is flowers that are used in the manufacture of cologne and pomades. Our visit there, and to the other places named, lingers in our memories as evidence of the truthfulness of the saying that "a thing of beauty is a joy forever." To describe the scenic splendor of hundreds of spots along the Mediterranean shore, from Montpelier to Menton would baffle my power. The visitors have a perfect surfeit of panoramic splendor, each view being, in its way, a repetition of that of the far-famed Cornich Road, or that seen from the tower of th church of Notre-Dame-de-la-Garde of Mar sellies.

The building of Montpelier, after th destruction of Maguelone, did much for th evolution of medical science, but the i direct influences of Charles Martel's succes in other directions did much more. H example led Christian Spain into rebelli

against Mohammedan rule so that, step by step, they were able to regain their freedom. Boabdil, the last Moorish ruler in Spain, was conquered by the soldiers of Ferdinand and Isabella just before the signing of the commission of Christopher Columbus and, indeed, their signature to that document was dependent on that victory. As the young Moorish king looked from the Alhambra hill, for the last time, on the beautiful and rich country that he had lost, tears welled into his eyes. His stern mother turned to him and said: "Weep not like a woman for what you could not defend like a man." Little did she know



of the fact that those tears presaged the discovery of a new world for man, or that Charles Martel, many years before, had started the train of events which made possible such tears and equally possible the discovery, at that time, of America. But still other events of equal importance came from Charles Martel's conquests. In his German fatherland he aided St. Willibrod and St. Boniface in their efforts at converting the pagan inhabitants to Christianity. He protected them with his soldiers and supplied them funds to help on their work. In 741 the Lombards threatened to besiege Rome and through his influence this danger was averted. After his death his son Pepin, through the abdication of his brother who entered a monastery, became sole prince of the Franks. In 741 Pope Zachary, as a return of favors, made him king of the Franks. Soon after Pope Zachary died and Pope Stephen came into power. Then the Lombards again threatened the head of the church with their vengeance and King Pepin was called upon for help. He sent an army to Italy, beat the Lombards, and compelled them to give to the church, as a perpetual heritage, the duchy of Rome and a number of Italian cities, near Rome. Thus started the so-called temporal power of the Pope. When Pepin died his son, Charles, came into power. By pursuing some of the methods of his grandfather, Charles Martel, he increasd the size of his kingdom and came to be known as Charles the Great, and as Charlemagne. By 796 he had conquered a large part of Europe. In 799 Leo III got into trouble with the citizens of Rome and was forced, by them, to leave that city. He sought safety in France, under Charlemagne who, in 800 A.D. replaced him in power and quailed the turbulent people of the Holy City. For this favor Leo crowned him Emperor of the world, and thus established the Holy Roman Empire of which Barbarossa was the chief glory. The rest of this part of the story we have already told.

In this coronation arose the need for that spiritual army, the Knights Templars

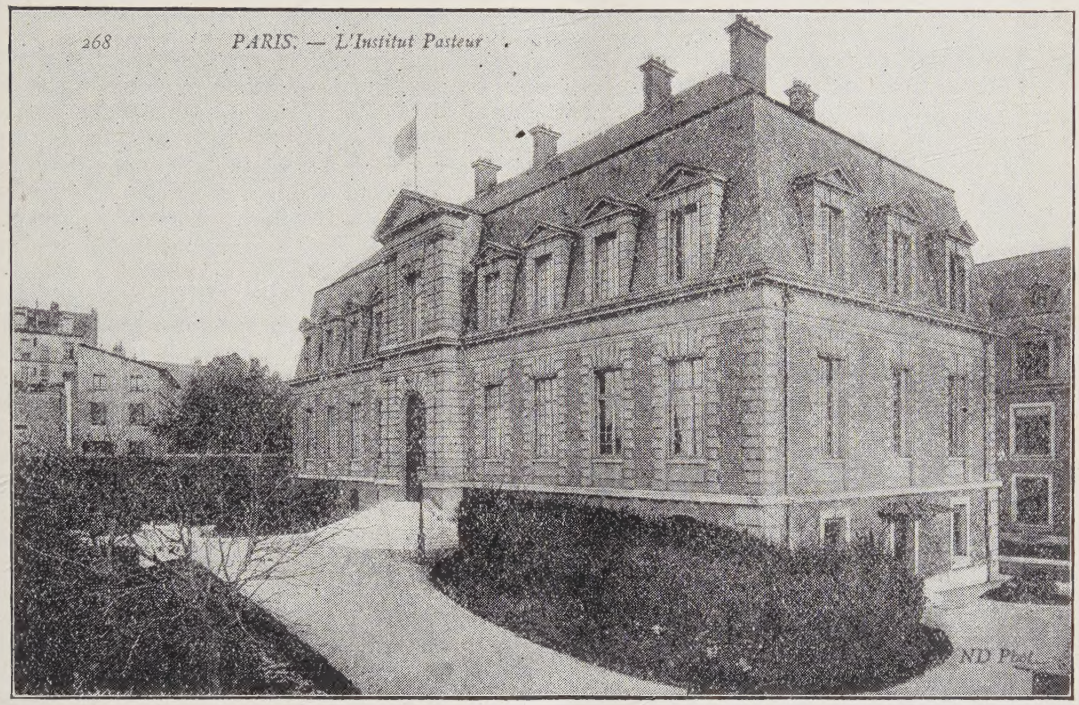
and the Knights of St. John. It nurtured the feeling that led Peter the Hermit to preach the Crusade. It led to the establishment of our universities and, indirectly, to the Renaissance. It led to our using the red cross as a sybmol for our hospitals, and a Frenchman, Adhemar, bishop of P[illegible]y, received from Pope Urban II, the first red cross of silk cloth ever worn as a symbol of the crusade. This occurred at Clermont, in Auvergne, where the Grand Council met in 1095, and where the Pope, himself, presided.

In history there occur many curious coincidences, that though purely the result of accident are somewhat startling. One such is associated with the history of the symbolic use of the cross. Its modern adoption dates from the International Congress called at Geneva, in 1863, by the Societe Genevoise, under the guidance of M. Dunant. Then the Red Cross Society was launched into active life. This brought the union which now exists between medicine and the red cross. In the whole world one can hunt in vain for four other places so intimately connected with the triumph of the cross and the triumph of medicine as Poitiers, Geneva, Paris and Montpelier. No where else in the world can one find a spot where the first symbolic cross was given by the hand of the Christian church, to be worn in the sight of all the people as a functional emblem, than at Clermont, in Auvergne, now Clermont-Ferrand. In Poitiers the cross won its first lasting triumph over the crescent. In Geneva the red cross was chosen as the symbol of mercy and human kindness for the wounded and ailing. In Paris Christian nurtured Galenican medicine had its early home. If the reader will take a map of France and with a red pencil draw a straight line from Paris to Montpelier and another similar straight line from Poitiers to Geneva, these two lines will form a nearly perfect red cross. In outline it will be very much more nearly perfect than is the so-called Southern Cross that lies near the south pole of the celestial sphere. The lines bisect each other at nearly right angles and the two arms of the cross are nearly of equal length. During ancient Roman crucifixions the heart of the one being crucified always occupied a position a little below the bisecting point of the two lines of the cross. In this historic-geographic, accidental cross Clermont lies, in relation to Poitiers and Geneva, just as would the heart of a victim of crucifixion. The act of Pope Urban II, at Clermont, was the cortical act in the dramatic history of the red cross. In touring France Clermont is unfortunatelly for us, a spot in this curious historic picture that we failed to see.

Inasmuch as Geneva is the only place where my wife could ever be persuaded to consent to my ascending in a balloonand that only on the condition that we go together so that if one of us should be killed the other would meet the same fate, the reader can imagine, if he chooses, that the lightheadedness induced by that ascent may have had something to do with my discovering such coincidences. It is therefore, probably best that no attempt be made to complete the story by adding other odd relationships that have occurred to me. If these serve the purpose of fixing in the memory the important events that connect them together they will have done their duty and my consumption of valuable space in their recital will be slightly justified. Before leaving the consideration of Geneva, however, it will be well to recall to the reader's attention that it was here that Dr. Servetus was burned at the stake for the heresies contained in a book that treated imperfectly of the circulation of the blood, about a century before the time of Harvey. It was at Dole, a small village near here, in which Pasteur was born, and about midway between here and Clermont, in Villefranche, that Claude Bernard, the great pathologist and anatomist, was born. As Geneva is the most common entrance to Switzerland, by tourists coming directly from Paris, it will be well to advise all who anticipate taking such a trip to study a history of Geneva in advance, for no where else has so much of literary, scientific, and historic interest been concentrated. Scarcely a great name of the past half millenium can be found whose bearer has not spent some time in this remarkable city. The beauty of its situation is common knowledge and needs no repetition at this time.

Returning once more to the consideration of Western France, from which our historic narrative carried us, we will take a hasty glance at the chief points of interest that were visited, learn what connections they had with the evolution of medical science, and see something of the people and their ways. In taking that part of our tour we entered France, from England, by way of Southampton, the Channel Islands, and St. Malo. We visited Mont St. Michel to see its strangely placed abbey, perched on the summit of the huge, conical rock where houses cling all around the sides and base, and to see its wonderful tide that, when rising, rushes over many miles of sandy-beach faster than a horse can run. We saw

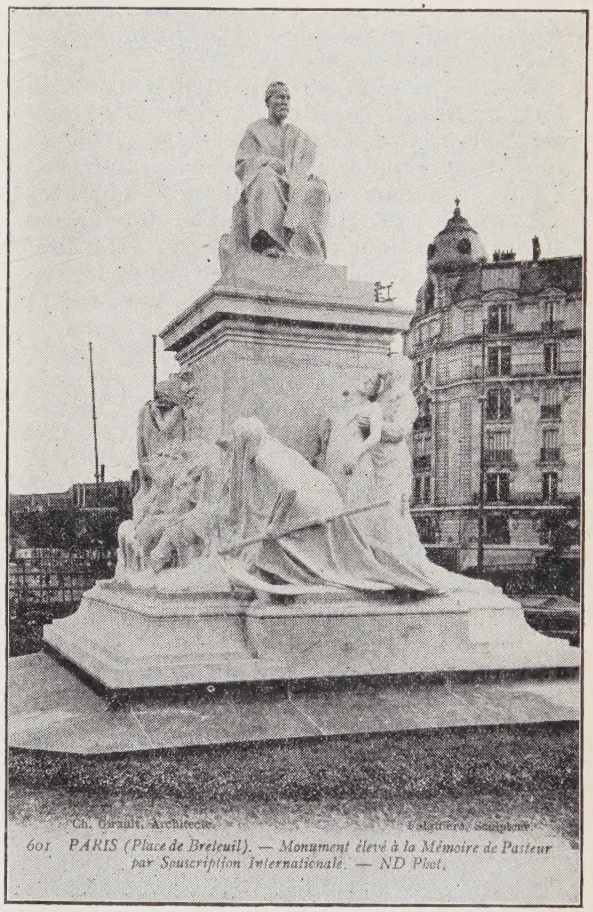
the curious St. Servan bridge, on stilts, that carries passengers across the bay as would a ferry boat. We watched the near-by bathers, and the public "Baigneurs," who are all men, caring for the ladies, who venture into deep water, and teaching them how to swim. We interested ourselves in the "Octroi" and their methods of collecting taxes on all sorts of goods that are carried into the cities for sale. In the United States we "kick" at our customs officers who go through our luggage whenever we return from a foreign land. In France they make the entrance to every town and city a port of entry, and overhaul even the cabbage and turnips of country farmers, compelling them to pay duty on every such article they carry, whether on a wagon or in a basket. No matter how small the basket happens to be, or whether it is carried by man, woman, or child, its contents are carefully scrutinized and a tax levied. We observed that all trolley cars had two conductors. One sells the passenger a ticket and the other cancels it with a punch. On railway trains there are no conductors. The passenger buys his ticket in the station, a gateman punches it as he passes to his train, and a second gateman collects it when he reaches his destination and leaves the train. There is no one to look after passengers to tell them when to leave their train. Before trains start a deep toned bell is struck a number of times, at slow intervals, which exactly resembles the ringing of a church bell for a funeral. Then there follows a squeaky sound from the train starter's bugle or whistle, whichever he happens to have. Following this the engine whistle blows and after that its bell rings and the train starts. No baggage checks are supplied so that owners of trunks have to be taken at their word when they point out those that belong to them and they are put to the necessity of keeping their eyes in the direction of the baggage cars to see that their belongings are not, by mistake, put off at the wrong station. Americans can be told by the shape of their hand luggage for the native "grip" is usually in about the shape of our ordinary trunks, but of course in miniature. A handle on the top serves them as a means of carrying the same. Soldiers are transported in cattle cars, and numerous such cars were passed bearing the words: "36-38 Hommes,—8 Chevaux." This means that each car has been made to carry from 36 to 38 men or 8 horses. At every road crossing there was always to be seen a woman waving a flag to warn drivers of the approaching train. These women are the widows or daughters of dead soldiers, this kind of job, as well as the selling of cigars and tobacco, being reserved for their benefit, by the government. It is



in tobacco stores that postage stamps, postal cards, stationery, picture postal cards, magazines, newspapers, and railway guides have to be bought. Book stores carry some of these articles but, as a rule, the handiest place to get them is from the tobacco store. All through Normandy and Brittany apple orchards cover most of the farms. Other crops grow among the apple trees. Buckwheat is very common and grows much more rank and with much redder stalks than in America. Cider is the common drink of the poeple but the article supplied at hotel tables is far from tempting. It tastes more like an inferior quality of diluted vinegar than anything else. All around each farm in Brittany, there are willow hedges. The willows appear to be used in making baskets and various articles of furniture. In Guyenne and Gascogne poplar trees gradually replace the willows as hedges. Both oxen and cows haul the farm carts and drag the plows. They are often seen hitched together. Most of the villages and country places in Brittany looked very strange to us, and the larger they were the more pronounced was their oddity. Instead of having small chimneys on the roof, as in our houses, the entire gable end of the house ascended, as a chimney, above the roof. Instead of slate or shingles, as coverings for the roof, some had red tiles, some thatch, and a large proportion of them slaty shale, in blocks about half an inch thick. Most of them had what appeared to be sashless panes of glass—single panes—fastened into the roofs. One of the most curious of all the curious sights, was the bread. It is a common thing to see women carrying to their homes, from some nearby bakery, loaves of bread fully two and a half feet long, one foot wide, and six inches thick. The crust on such bread is so hard that it tests the quality of the teeth and jaws of the users. Bakers supply many sizes, but purchasers appear to buy those that correspond with the number of consumers in the families. Whenever a funeral passes it is customary for all men to take off their hats and all women to cross themselves and say a prayer. In small towns this is not as noticeable as it is in large cities, like Nantes, Bordeaux, or Marseilles. There the streets are crowded, and when a great multitude simultaneously uncover their heads it is instantly observable. The mourning costumes of the women differ from those of America in the oddity of shape of the hats and the immense length, width, and foldings of the black sashes. The dresses can scarcely be seen, particularly from the rear, because of the size of the crape additions. Although flowers are abundant, and much more beautiful than those supplied by florists in New York or Chicago, they decorate their tombs with painted metal imitations of flowers that, to me, look repulsive and unnatural. Most of the peasant women wear caps of immaculate whiteness, no matter what may happen to be the color of their other garments. The fronts of the caps are heavily fluted in white. Mourners use black fluting on the white caps.

The towns we visited were such as contained places of historic interest. Art, landscape, and architecture were of secondary importance. Rennes interested us as the early home of Descartes, Nantes as the place where Laennec, the invenor of the stethoscope, and Bichat had been students, La Rochelle as the place where Seignette first produced Rochelle salt, Bordeaux as the birth-place of Magendie, and Bayonne as where the bayonet was first produced. At La Rochelle we did not forget the wars of the Huguenots for freedom there, nor at Bordeaux did we lose sight of the fact that Benjamin Franklin landed at that port when on the most momentous mission of his life. We likewise recalled it was from there that Lafayette, at much risk, secured the ships he required to help America in its fight for freedom, and that near there is the present home of the exiled Acadians whom Longfellow's Evangeline has immortalized. At Bayonne who could forget that it was there where the two fiends, Catherine de Medici and the Duke of Alba, planned the horrors of St. Bartholomew's day? What a time of darkness and spot of moral blackness that day brought upon Paris! Medical science then came near losing one of its greatest sons. The chief object of Catherine's hate was Gaspard de Coligny, admiral of France, and a Huguenot. When the massacre occurred he was marked as the first to be sacrificed. They had even tried to kill him two days before, but only wounded him. The night of the massacre Ambrose Pare, one of the most important individuals in the evolution of surgical science, was with him attending to his wounds. Pare was also a Huguenot Protestant. Coligny had long been aware of the intended massacre. To those present he said: "I have long been ready to die, but you, my friends, save yourselves, if it is still possible." As Pare still hesitated to leave his patient, the old admiral, urgently insisted upon his going. They heard the commotion and noise of the approaching crowd of murderers and the firing in the

court-yard made them certain of what was about to happen. But for the intervention of Charles IX Ambrose Pare would still have met the fate of the other Huguenots of Paris, but the king had so much faith in his surgeon that he spared his life. He tried to force Pare to become a Catholic as a condition of saving his life, but the latter was stubborn and the former let him escape. The entire life of Pare is a most remarkable one. He, a mere barber, had, for many years to fight the whole medical profession. He took up surgery with his barber work, as was the habit of his time, and in order to advance himself in such work attended clinics at Hotel Dieu, Paris. Getting a position as surgeon-barber in the army he studied faithfully the methods then in vogue for the treatment of wounds. On one occasion the boiling oil gave out that it was the habit of the army surgeons, of those times, to use in every wound before bandaging it. He noticed that those whose wounds were not treated to boiling oil survived in far greater numbers than those on whom the oil was applied. When the surgeons were told of this they first made fun of him, and then denounced him as a quack and a fool. He persisted in fighting them and—naturally—those officers who happened to be wounded preferred Pare's method of treatment, as it was much less painful. His results told and he became the favorite surgeon of the army. His next great discovery was that of saving the lives of those with severed arteries, of large calibre, by ligating them. This led to amputations of hopelessly wounded large limbs. To us, today, the opposition which he met from the profession, because of this discovery, seems like sheer insanity. He was denounced as being conceited for pretending to know more than all the rest of the profession. This, by the way, has always been a favorite missile to hurl at independent thinkers. It is not deemed conceit to fight the ignorance of one doctor, but it becomes serious conceit to fight the ignorance of all doctors. To all new knowledge there must be a beginning and much of it must conflict with tradition. One man must first observe this conflict. There may be many better posted and brighter men than he is, but their enthrallment blinds them to the new truth, and very frequently they are the blindest of the blind. Men who honestly desire truth either investigate the new claims or keep still. Bigots scoff, call names, denounce, and condemn. Honest criticism of a new idea is beneficial, but dogmatic condemnation is, by the ethical standard of nature, vicious and criminal. The worst foe of the human family is the man who dogmatically denounces even a genuine crank. If facts cannot prove his crankiness then no honest man is going to hurl invective at him and then refuse to give him an equal hearing. Ambrose Pare was a medical and a religious heretic, but we are now all ready to bless him for both phases of his heresy and then—well—some of us go ahead and imitate Catherine de Medici as far as we dare.



601 PARIS (Place de Breteuil). — Monument élevé à la Mémoire de Pasteur par Souscription Internationale. — ND Phot.

Paris—purged Paris—is far more liberal than she was. There are fewer of the stripe of that de Medici there now. Paris doctors, long steeped in senseless conservatism, have now a larger sprinkling of men who are not afraid of new thoughts whether true or false. They no longer drive their Vesalius's to Italy, nor give over their Servetus's to the stake. They have more men like Rene Descartes who, diplomatically, seek to promote truth without courting martyrdom. He had the courage to defend Harvey, to teach evolution, to devote his life to the promotion of scientific

physiology, and yet he was trained and raised as a Jesuit. His "cogito ergo sum" is still the despair of materialism—a pithy statement of fact that no opponent has ever been able to refute. He helped bridge the great chasm between past and present ways of thinking in both medicine and philosophy. His body, like that of Columbus, has been tossed about by the exigencies of politics, but the black marble tablet, in the church of St. Germain-des-pris, that marks his last resting-place, should be visited by medical tourists who hold in respect the great men who have helped create modern medical science.

There are a good many such spots in Paris. In the court of the Ecole de Medicine is a bronze statue in memory of Bichat that they should see. He was known as "The Napoleon of Medicine," and his "Anatomie general" laid the foundation stones of scientific pathology. He first differentiated and named the various tissues of the body, first taught us the meaning of respiration, first classified our organs in relation to their functions, and first taught us how to distinguish pleurisy, pneumonia and bronchitis from one another. A second monument to this great physician is found in the Pantheon, that stands on the site of the old tomb of St. Genevieve, the patron saint of Paris. There, too, are monuments to Descartes, the physiologist and philosopher; to Lafayette, who did so much for the United States; to Laplace, the astronomer and evolutionist; to Berthelot, the chemist; and to many other of France's great sons. In the Rue des Ecoles, facing the College of France, can be found a bronze statue to the memory of Claude Bernard, the man who, along with Brown-Sequard, taught us the function of the thyroid gland and who discovered the glycogenic function of the liver. He was the assistant and successor of another Frenchman, Magendie, Professor of General Pathology in the College of France. The name of Magendie is familar to most physicians through his solution of morphine, but he owes his reputation for greatness to much more than this. He was the pioneer experimenter in pharmaco-dynamics, and to him we owe the use of the alkalies as therapeutic agents. He too first coined the words "pyemia" and "metastasis" as terms of pathology. On the Chemin du Dragon, in the Cemetery of Pere-La-Chaise—the principal cemetery of Paris—can be found the tomb and handsome medallion that marks the last resting-place of Geoffery St. Hilare, the great naturalist, and Member of the Academy. Around where he lies are hundreds of tombs of great painters, authors, sculptors and statesmen, but none of them ever did as much for the advancement of man as he did. As a link in the chain of mental progress he made Darwin possible and even anticipated the mutation theory of De Vries. His "Philosophie Anatomique" was greatly admired by Goethe because of its evolutionary ideas. He was the colleague of the famous Lamarck whose theory of evolution by acquired characters is today one of the burning questions of biology. Both St. Hilaire and Lamarck studied medicine but turned their attentions to science, and both were so unfortunate as to spend the last days of their lives in blindness. Both held positions in the Jardin des Plantes, one of the most interesting spots in Paris for a stranger to visit. To Lamarck we are indebted for the word "biology" as applied to the science of living things. Competent authors speak of him as the most prominent figure between Aristotle and Darwin. While this may apply to Lamarck as a naturalist, when viewed by naturalists, he can occupy no such position from the standpoint of medicine. If we pass Darwin and come a few years nearer to our own time, the one man who looms up above all others and who, in some respects matches even Darwin, is Louis Pasteur. He revolutionized medicine as no man ever did before him. The Pasteur Institute, as a monument to his memory, and the international subscription monument, at the Place de Breteuil, are evidences of the impression he has made on this generation, but it is the firm conviction of this writer that a century from now he will be reverenced even more than he is today. Without his work we never could have discovered the etiology of disease as we know it now. To the masses he is known as the man who taught us how to overcome rabies, but to the well posted physician he is the man who taught us how to know the causes of all kinds of diseases and who put us on the path that is leading us into the knowledge of how to cure diseases. Aided by Davaine's discovery of the anthrax bacillus, Chaveau's discovery of artificial immunity, and Calmette and Roux's many discoveries concerning the mechanism of immunity, Pasteur, and the Pasteur Institute, have done more for suffering humanity than is generally known. Much—very much—has been done in Germany, but that is another story.

Nor has the good work of the Pasteur Institute come to an end. It is still going on under the leadership of another great discoverer, Metchnikoff. His chief dis-

covery, however, and one that will be remembered for all time, is the phagocytic function of the leucocytes. On this discovery hangs the true explanation of acquired immunity. It reveals the fact that our cells fight disease in almost exactly the same way as our stomachs or duodenums digest our food. Indeed, by inference, it seems to indicate that digestion is as much of a protective measure as it is a means of nutrition. The existence of these fighting cells shows us that the struggle for existence and the survival of the fit began with monocellular life, kept up through the lowest forms of polycellular life, and has never, to this day, ceased.

The great battle for existence at all times has been within, rather than without, the animal's body. The forms that have survived must have chiefly been the forms that were able to meet and defeat the invisible, more often than the visible foes. Metchnikoff made his great discovery at the ill-fated city of Messina, in Sicily. When this series of papers was begun, the reader will recall that we started from Catania, a city within a few miles of Messina, and that we had just arrived there from Messina. It was in the waters between Messina and Catania that Metchnikoff secured his research material that led him to the discovery of phagocytosis. So novel was this idea of fighting cells that there was no particular inherited theory to oppose against it. One would hardly have expected it to be vigorously opposed unless facts were really against it. The conservative habit of fighting everything new, merely because it is new, is so strong a trait among some men that, without waiting for facts, it was at once assailed, and by the very men who should have been the first to espouse it. Prof. Ziegler and his pupils went against it with all their might in spite of the fact that it was from Ziegler's book that Metchnikoff got most of the facts which he used in strengthening his own interpretation of the things he had observed. It was not long, however, before many other observers saw the things that Metchnikoff was the first to see and he was thoroughly vindicated.

Since July 1 the State Hospital for the Insane, Bartonville, Ill., which was first known as the Illinois Hospital for the Incurable Insane, has been known as the Peoria State Hospital. The other state hospitals for the insane are now known as the Jacksonville State Hospital, Watertown State Hospital, Kankakee State Hospital and Elgin State Hospital, respectively.

TOXICOLOGY OF TOBACCO SMOKE.

ALF. A. ROBINSON, M. D , A. B.

OGDEN, UTAH.

Few are the school children past the age of twelve years who are unacquainted with the amusing episode incident to the introduction of tobacco into the civilized world. The jug of ale that Sir Walter Raleigh did not drink serves as a monument to the event.

Divers are the opinions held as to the amount of injustice this ill-fated navigator inflicted upon civilization, but whatever individual notions may be the fact remain unaltered, that the great tobacco industry is permanently established and the habit of smoking is here to stay.

In the war that has been waged against cigarette smoking many false and unscientific statements have been made by the anti-cigarette propagandist who, in his enthusiasm, has distorted facts and prejudiced opinion.

The resorting to untruths to accomplish reform does not appeal to thinking people of the present day, and the old proverb, "Where ignorance is bliss 'tis folly to be wise," would seem to have outlived its usefulness.

On the other hand, there are many good and intelligent men addicted to the habit of smoking who claim that nicotine is destroyed in the burning of tobacco, and that all the effects, ill and beneficent, are due to products of combustion.

Let us, then, analyze facts rather than listen to fancy and disregard the opinions of optimist and pessimist on this question.

Tobacco is the commercial dried leaf of Nicotiana Tabacum, a native American plant of the nat. ord. Solanaceae, now cultivated in several parts of the world. The leaf contains nicotine ($C_{10}H_{14}N_2$), a camphoraceous principle nicotianin, denied by some analysts, potassium and calcium salts, silica, gum, resin, and other substances of minor importance.

Of these constituent parts, the alkaloid nicotine is most important. This is a very poisonous, colorless, oily fluid, having the odor of tobacco and an acrid taste. It is readily soluble in water. The process of curing produces only a slight chemical change in tobacco, but the proportion of nicotine varies greatly with the specimen. Some brands are said to contain little or none while in others, analysts have found from 0.06 per cent to 2 per cent, and even as high as 8 per cent.

This substance is one of the most powerful and rapidly acting poisons known. One-

fifteenth grain has caused death in a human being. Death due to this poison apparently is not a painful one, the victim dropping to the floor insensible with no symptoms, but a deep sigh and a wild stare, perishing within about three minutes. The immediate cause of death is attributed to paralysis of the nerves of respiration, the heart beating for some time after respiration ceases.

One-thirty-second grain is a lethal dose to a cat or dog.

In its action on the body, nicotine selects chiefly the nervous system—more especially the nerves which have to do with motion. These motor nerves are first stimulated from its effect, but later their function is depressed or even abolished. The salivary and intestinal secretions and the kidney and cutaneous excretions are increased by this substance. It contracts the pupil and lowers body temperature.

After acting as a narcotic to the system, it is excreted by the kidneys and the salivary and perhaps the sweat glands.

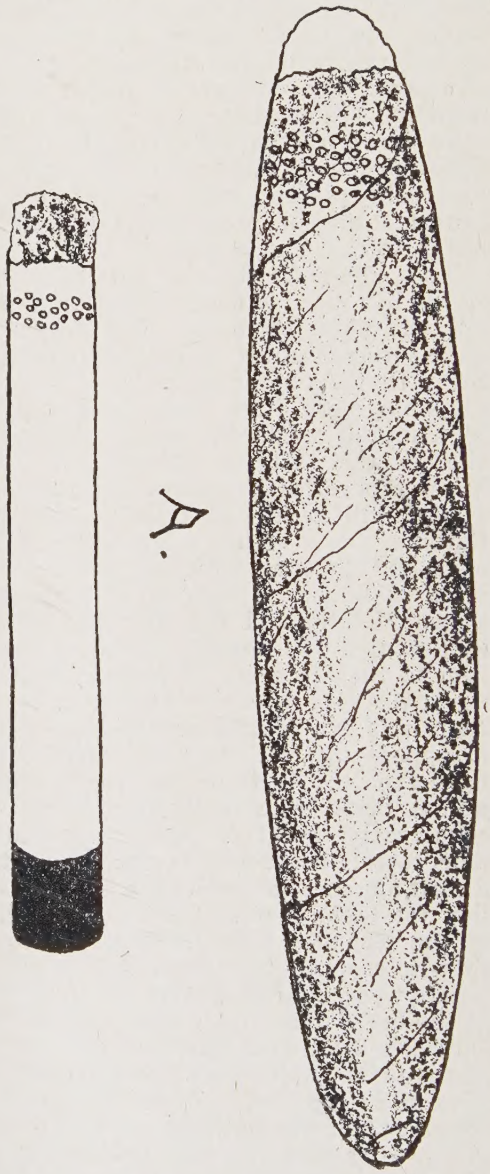
Owing to the dangers attending the employment of tobacco, its use for medicinal purposes has been superseded by less violently acting agents. Nicotine is a useful drug, however, in tetanus, as it depresses the motor nerves thereby blocking the impulse to the muscles and decreasing the violence of the convulsive paroxysm. It is similarly useful in strychnine poisoning.

The application of tobacco to wounds is a pernicious practice, especially where it comes from the mouth of a "chewer." This adds to, rather than lessening the danger of infection, and the absorption may give rise to symptoms of tobacco poisoning, especially if the injured be not a tobacco user.

The widely prevalent opinion that nicotine is destroyed in the burning of tobacco dates back to the experiments of Zeise in 1843. Vohl and Eulenberg, in 1872, were unable to obtain a trace of nicotine in the smoke of one hundred cigars. The unsavory effects of the tobacco smoke were attributed to products, the result probably, of decomposition, namely: pyridine, collidine, picoline, parvoline, etc. The most active of these, pyridine (C_5H_5N), predominates when tobacco is smoked in a pipe, but when there is free access to air as in smoking a cigar, the less active collidine ($C_8H_{11}N$) is found in greater quantity.

The proportion of carbon dioxide (CO_2) in tobacco smoke is about 9.3 per cent. Other substances more complex, are acetic, carbolic and valerianic acids, creosote and hydrogen, cyanide and sulphide gases. These are of greater chemical interest than of toxicological importance.

More recent investigations have shown that a considerable part of the nicotine does pass over in the smoke, and that with some brands of cigars, two-thirds of this alkaloid



A. o's represent nicotine deposited behind the point of combustion, showing quantity to be less in cigarette than in cigar.

passes over while the smoke of others is found to contain only one-twelfth of the poison.

In a study of the subject at the Pharmacological Laboratories of the Cambridge University, W. E. Lee found, by passing the smoke from 100 grams of tobacco through a salt solution, that 1.165 grams of nicotine were collected (one half of the nicotine

of the tobacco) and that but 0.146 gram of the products of combustion, chiefly pyridine and collidine, was obtained.

To determine the form of smoking that yields to the consumer the greatest quantity of nicotine, the products of combustion from a Manila cigar and a Virigina cigarette were collected. It was found, in spite of the fact that the cigarette tobacco contained nearly twice as much nicotine as the cigar tobacco, that the smoke from the cigar contained twice as much nicotine as did the cigarette smoke.

This is explained as follows: During the slow burning of a cigar, volatile substances, of which nicotine is one, are condensed in an area just behind the point of combustion (see illustration A). As the hot smoke passes over these substances they are re-volatilized and drawn over in the smoke (see illustration B). The same is true, of course, of a cigarette, but it has a smaller condensing space and also burns more rapidly than does the cigar. It is, therefore, quite natural that less nicotine will be deposited here and a greater quantity will be consumed in the rapid burning, consequently cigarette smoke contains less of the poison. A "fat," thick cigar, then, furnishes to the smoker more nicotine than does a slender one of a cigarette.

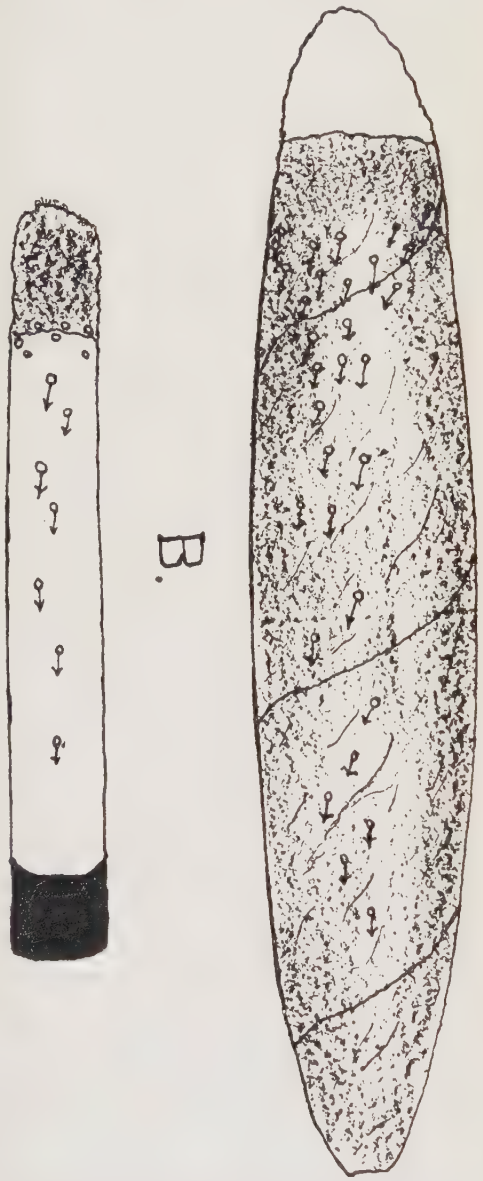
This offers an explanation for the unpleasant effects experienced by one unaccustomed to smoking, on relighting a cigar —in the first few draws he gets the nicotine that has been deposited behind the point of combustion before the fire was extinct.

In spite of the above facts, however, experience inflicts upon the cigarette the most unsavory reputation. As "Experience" has no object in proving anything but the truth, her word must be accepted as legal tender, and we must seek an explanation for her findings.

In the first place, a cigarette user generally takes so many more smokes in a day than does a cigar user that, although cigarette smoke contains the less nicotine and empyreumatic products of the two, the smoker of the cigarette makes up in quantity what is lacking in quality of these poisons from the smoke.

Again, smoke from the cigarette is generally inhaled while but little of that from a cigar enters the lungs. The capacity to absorb gases of the lungs is much greater than that of the mouth. In this event more poisons are extracted and enter the system from the smoke that goes into the lungs than from that which enters only the mouth, even though the former does contain less toxic substances.

Many persons smoke in moderation without any noticeable effects being manifested. The smoke after eating seems to assist digestion and a laxative result is experienced generally after the morning cigar. The use of tobacco by these individuals, when under extreme exertion, seems to aid in supporting the system and lessening the sense of fatigue. It is very probable, though, that the action of tobacco here is similar to that of the driver's whip on a tired horse—it urges him along, but makes



B. o's represent nicotine, when re-volatilized, passing over in the smoke. In the cigarette, part of the nicotine is consumed by the rapid descent of the combustion process.

no attempt to assist by rolling on the wheels.

In persons with an hereditary tendency to disease of the blood vessels and in those who use tobacco to excess, the detrimental effects of smoking cannot be denied. There is an old saying and a true one: "A man is as old as his arteries." The action of nicotine on the arteries produces a hardening and an inelasticity of these vessels as does advancing age, thus making one older in life than in years.

The term "tobacco heart" covers many forms of irregular, irritable and painful affections of that organ, due to no cause other than nicotine and the products of combustion from the smoke. In the young, tobacco may be responsible for an hypertrophy and even a valvular insufficiency of the heart (Osler). It also hinders the development of the mind, and by interfering with digestion and assimilation, impairs nutrition.

The symptoms of overuse of tobacco may be summed up as follows: nervous irritability, sleeplessness, heart pains and palpitation, loss of appetite, digestion disorders, breathlessness on exertion, inflammation of the throat and impaired vision.

The claims that cigarettes are "doped" with opium and other drugs and that the rice paper is very poisonous have many times been disproved by chemists and commissioners.

A widely discussed problem is: how can the smoking habit best be overcome? Not even the companies exposed by Samuel Hopkins Adams have found a "sure cure," although the nostrum region has not been free from such claims. There are drugs that are beneficial but none is specific.

The usual method adopted by the "Quitter" is one that serves only to beguile himself and weaken his will power. His desire to desist is so strong that he is unable to wait until the "pack" is used up—he throws it away, only to buy more when his enthusiasm has waned and the desire to smoke waxed warm. There is no method in such madness! Although the mode of quitting suddenly sometimes proves successful, it is not, perhaps, the best way after all. When we consider what has been going on in the system the folly of this method is apparent.

If a morphine habitue be deprived suddenly of his drug, the symptoms following are violent and alarming. The chief cause of this is thought to be that, as the morphine is constantly taken in, the system manufactures a substance to combat the effects of the drug; in other words, there is thrown out a substance anti to the morphine. As there is a standing order for this anti-substance, the system installs a permanent plan which supplies so much per day. When the opiate is stopped suddenly the manufacture still continues to a certain extent and, as there is no drug for this anti-substance to act upon, the system suffers from a self-inflicted poison.

It is not improbable that a tolerance for nicotine and other products of the tobacco smoke is established in a similar manner. The symptoms which follow sudden withdrawal of tobacco add the plausibility of this hypothesis. The craving of a smoke is simply a call from the system for something upon which the anti-substance can act.

It would seem, then, that the most sensible way to overcome the tobacco habit is to lessen gradually by the number of smokes per day until the zero point is reached. From fourteen to twenty days will usually suffice. By that time the manufacture of this hypothetical anti-substance has been reduced to a minimum.

This, of course, deals only with the toxic side of the habit. The question, whether or not the individual really wants to quit is of prime importance. The pscyhic side also has a very important role, but a brief paper of this sort will not permit invasion of that realm.

2447 Washington Ave.

Vocation and Avocation.—The word "vocation" is derived from the Latin voco, I call; vocatus, calling. "Avocation" is derived from avoco, I call away or divert; avocatus, calling away or diverting. A man's calling or vocation is that for which he has prepared himself, for which he is fitted or for which he has received a call, as we say especially in regard to a religious vocation. But when a man is called away —avocatus—from his regular employment and engages in a diversion or recreation of any kind the word avocation applies to such diversion or calling away. The recreation may be of a very serious nature, as some profound study or arduous work, but it is not his vocation. The schoolboy has no vocation. He is fitting himself for one. But he may have many avocations. Gladstone's vocation was statesmanship; among his avocations were the study of the classics, making translations and sometimes chopping down trees.—London M.A.P.

REFILLING PRESCRIPTIONS—OF INTEREST TO THE PHYSICIAN, THE PHARMACIST AND THE LAYMAN.

J. F. CHANDLER, PH. G., M. D.

FOREST CITY, MO.

It strikes me as very strange that while so much attention has been given to legislation along the "anti-line" during the past year that nothing has been done to prevent the refilling of prescriptions for habit forming and other injurious drugs.

The pharmacy law says the pharmacist shall not sell opium or its alkaloids, cocaine, etc., except on a prescription from a regular registered physician, yet if a prescription is once obtained calling for a mixture containing these drugs its possessor may continue to purchase the medicine without further orders, and what was prescribed for immediate use in case of an emergency may be continued without the knowledge or sanction of the one prescribing, until a habit is formed and the one using the same becomes unconsciously, perhaps, a so-called fiend, as a result of the pharmacist refilling the prescription,

Having been engaged in the practice of pharmacy, I, too, have been guilty of promiscuously refilling prescriptions, and since engaging in the practice of medicine, have been paid back in my own coin.

Having obtained a knowledge of these things I wish to speak, by actual experience, and being willing to admit that I, too, have been guilty, I trust my brethren of the pharmaceutical profession will handle me gently. I think it a duty as physicians and pharmacists—brothers in two kindred professions—when we feel we have anything to offer which might give an impetus toward improving our condition, to speak out. Believing the physician and pharmacist can do much toward prolonging life and bringing happiness to the homes of many who are destined to suffer from the ravages of disease, I think we should not shirk the duty we owe to humanity, by sacrificing a great principle for a few paltry dollars. We should strive to do right, and knowing the right thing to do, we should do it with a will which does honor to our profession. We should endeavor to get near to each other, try each to gain the other's confidence, and work together in our great and useful field, that we may be able to meet disease in its many phases and dislodge it from the homes wherein it may have entered. One and the greatest evils which has a tendency to divide us is promiscuously refilling prescriptions by the druggist. I realize that this article may amount to little more than irritating an old sore, and I wish I was capable of putting into it sufficient heat to destroy the old sore that new granulations might start up, the wound heal, so that our business relation may run along in a healthy channel.

We need the pharmacist; we need more pharmacists; fewer dealers in drugs, perhaps, but men competent to do the work when the physician sends in the order.

I desire to see the pharmacist elevated in the minds of the public to that plane where he rightly belongs—a profession—instead of seller of toilet trinkets, booze and dope, as many would be pleased to class him. Yet by continuing to refill prescriptions calling for opiates, cocaine and other habit forming drugs, without the consent of the physician so prescribing, he becomes responsible for the downfall of many, and a regular dispenser of dope. In many instances the person taking the medicine is unaware of the danger from continued use as he looks on the mixture as a medicine suitable for his ailment, which was likely the case, and necessary at the time the prescription was written, and continues the use thereof because he feels more comfortable, even though his condition becomes worse.

The Anti-Opium and Pure Food Laws have done much to protect the public from the dope that was put out under the guise of a "cure" and bearing the patent medicine label; but so long as druggists are permitted to refill prescriptions containing opiates, cocaine, "sleep producers," etc., these laws amount to but little.

All medicines have a legitimate place in the treatment of the sick when prescribed honestly and intelligently, and the use should be continued only under the direction of the attending physicians, as it is he who should be the judge in the matter, and not the patient or the druggist. I would not attempt to mention the medicines which I think should be sold only under the direction of the physician, as the list would include about all, for I contend that no medicines should be used indiscriminately and none placed in the hands of those unfamiliar with the properties thereof. In fact the indication for, as well as the contraindication against, the use should be understood, and who but those especially trained in the science of medicine are capable of so directing the use.

A great mistake is made by many laymen in attempting to treat children with medicine prescribed for an adult—having the prescription refilled that was given the parent —reducing the dose in proportion to the

size of the child, thinking what is good for the parent is good for the child, thereby failing to take notice of the peculiarity of childhood as to the effect of certain medicines.

I have known this to occur many times, and can recall one instance where compound syrup of white pine was given to an eighteen-month's old child until the child became moribund. To be sure the cough was relieved and the child became quiet, but the parents delayed calling a physician until the child was almost dead. Many cases could be cited where the lives of children have been endangered through ignorance on the part of the parents in thinking they may save a doctor's bill by having a prescription refilled. Many think the prescription common property and, when once obtained, they may have it refilled as often as they wish, and if they have been benefited by the use of the medicine they induce their neighbors to try it, knowing little concerning the condition of the one to whom they have passed on the medicine, and to whom it may prove injurious. Should they be permitted to dope their neighbor, unconsciously perhaps, when it is known that death may result from an act on the part of an ignorant person who has no intent to do wrong? The result is the same, no matter what the intent!

So long as the liver, kidneys and other organs of elimination are in good working order many poisonous drugs taken in small doses are eliminated, but let one of these organs become diseased or fatigued from over-stimulation or too much work, the poison accumulates, and there is a breakdown.

It seems to me if there is anything in the world which requires good judgment and acute discernment it is the giving and taking medicine, as the condition of man is not the same from day to day, he being influenced largely by atmospheric conditions, the food he consumes; his environments, etc. Such being the case and the layman possessing but little knowledge of the indications for and the contraindications against the use of drugs it should be required of him for his own protection that he seek the advice of those especially qualified.

I would have the pharmacist understand that it is not my purpose to antagonize him in any way, but I would harmonize, I feel that he has received the butt of much of the recent legislation, and in many cases unjustly so, and where he has been restricted the general merchant remains unrestricted. In fact the sight of the gunners seems to be so affected that they can see an object having attached a druggist label, no matter how small; yet a much larger package with like contents alongside, from the general merchant, escapes their notice. The gun is choked too much. It should be so bored that it may be permitted to scatter, so as to reach the general merchant as well as the druggist when pointed in the direction of the one.

A Case of Hydatiform Mole. — Dr. Edwin W. Smith reports, in Medical Council for July, a case of hydatiform mole, the diagnosis of which was, at first, puzzling. Patient was 40 years old; married; had four children, youngest aged 5. Previous history negative and labors all normal and easy. Menstrual history negative. Began at 11, flow four days, without pain. June 22 she had a normal period. In July she missed, had nausea and thought she was "caught." In August the normal show recurring caused her to think she had made a mistake. A week later she complained that she still had some slight flow which would last part of a day and then stop, only to begin again the next day. This continued in spite of treatment, and a vaginal examination was requested, but patient would not consent. In the latter part of October an examination of the abdomen showed an irregular enlargement of the uterus, with no evidences of fetal life, and it was impossible to locate any fetal parts. November brought a good many pains across the abdomen, a good deal of flow, and on the 26th several small granules, which looked like sago, came away. This, of course, was the key to the situation, but the family refused to allow any operative interference. On the night of November 30 she was delivered of a large, irregular mass, about as big as a man's fist, and weighing a little over a pound, apparently partly placental tissue, but loaded with thousands of little transparent globules, varying from a grain of rice to a small grape in size. They were in strings and clusters, and a tablespoonful of loose granules was collected. The uterus was thoroughly douched out with hot 1 per cent lysol solution and a full dose of ergot given. Convalescence was uneventful. Expulsive pains lasted about an hour and were exactly like those of an ordinary miscarriage. There was absolutely no sign of a fetus in the growth which was expelled. The specimen was sent to a laboratory and was pronounced a typical hydatiform mole.

DIRECTIONS FOR PRE-OPERATION AND POST-OPERATION TREATMENT OF PERITONOTOMY FOR NURSES AND INTERNES.

BYRON ROBINSON, B. S., M. D., LLD.

CHICAGO.

I. Pre-Operation Preparation for Peritonotomy.—The patient should be prepared two or more days for peritonotomy. The preparation should begin on entrance in the hospital.

Intestinal Tract Preparation.—Administer mild chloride (hydrargyrum chloridum mite) grains II on hospital entrance; one hour subsequent, $MgSO_4$ (magnesium sulphate) 1 drachm, and repeat the $MgSO_4$, drachm 1 one hour later. Two hours after the last dose of $MgSO_4$, administer "honey oil," drachms IV, (saccharated castor oil) every three hours until four to six defecations occur. Place the patient on liquid diet forty-eight hours previous to operation. Inspect mouth and teeth.

DIET LIST.

Liquid Diet.—Milk broth (of any kind), fruit juice, gruels, eggnog (without spirits), cocoa, clear soup, buttermilk, cream, albumen, oranges, tea, coffee, lemonade.

Semiliquid Diet.—Milk toast, soft boiled egg, custard, liquids, gruels.

General Light Diet.—Mutton, rare roast steak, chicken, oysters, celery, soft boiled egg, baked or boiled fish, simple puddings, tapioca, rice, farina, toast, bread (twenty-four hours' old), jellies, oranges, liquids. No stimulants unless ordered. Give no corn beef, cabbage, pork or veal to any patient except by special order.

Pre-operation Rectal Enema.—Inject per rectum 1 pint of fluid (normal salt solution, soap suds), two to four hours preceding the operation.

Pre-operation Visceral Drainage begins on entering hospital. Directions for pre-operation visceral drainage:

Before Meals Place together on the tongue $\frac{1}{4}$ white* tablet with 1 brown † tablet and drink a glass full (8 ounces) of hot water.

Between Meals (that is 10 a. m., 3 p. m., and 9 p. m.) place together on the tongue $\frac{1}{4}$ white tablet with 1 brown tablet and drink a glass full (8 ounces) of fluid. No fluid should be administered by mouth for two hours previous to the operation.

Cutaneous Tract Preparation.—A. Administer ten to fifteen minutes medicated tub bath daily.

B. Shave pudendum and abdomen.

C. Cleanse operation field with water, soap, and cotton, not gauze or brush, twenty minutes first day, fifteen minutes second day, and ten minutes third day.

D. Apply preparation dressings continuously after first cleansing of operation area.

Vaginal Douche.—E. For vaginal operations six to eight quarts of normal salt solution (110 degrees) should be administered twice daily.

Urinary Tract Preparation.—Specimen of urine should be collected on hospital entrance and examined daily.

Vascular Tract Preparation.—The blood should be examined on hospital entrance.

II. POST-OPERATION TREATMENT OF PERITONOTOMY.

Hemorrhage.—Watch for hemorrhage every ten minutes for one and one half-hours and subsequently every one hour for six hours.

Pulse.—The condition of the pulse should be recorded every half hour for three hours, subsequently every one hour for six hours.

Respiration.—The condition of respiration should be recorded every half hour for two hours thereafter three times daily.

Temperature.—The temperature (rectal) should be recorded two hours subsequent to operation and every three hours thereafter for forty-eight hours. (Exception to rectal temperature are rectal operations perineorrhaphy). After forty-eight hours, morning and evening (rectal) temperature should be recorded. Should the rectal temperature suddenly exceed 102 degrees or the pulse suddenly exceed 110 beats per minute, the nurse should inform the attending physician.

Bladder.—The patient should be catheterized five hours subsequent to perineorrhaphy and later every six hours or as ordered. Other operation subjects are allowed to urinate. The urine should be measured for three days and examined every other day for ten days.

(A) *Hot Fluids* may be administered for the first forty-eight hours—as for example:—hot water, hot coffee, hot tea, hot lemonade, hot soups.

(B) *Cold Fluids* may be administered by special order of the attending physician, as for example, water, buttermilk, spirituous liquors. Ice is detrimental to peritonotomy patients. If the patient be not nauseated after the operation administer one ounce of hot fluid every half hour for the first three hours. Subsequently gradually increase

*Composition of †brown tablet—Cascara sagrada—1-40 grain; aloes—⅛ grain; $NaHCO_3$—1 grain; $KHCO_3$—½ grain; $MgSO_4$—2 grains.

*Composition of white tablet equals NaCl, 12 grains.

the hot fluid per hour until three ounces per hour are taken—by the end of the first twenty-four hours. During the second twenty-four hours four ounces of hot fluid per hour may be administered if the patient bears it. During nausea after the operation no fluid by mouth should be administered.

Pain. If the patient complains of pain:
(1) apply hot poultice, (hot water bag, hot corn meal, fomentation).
(2) Hypodermic injection of sulphate of morphia, 1-12 grain, the second, fourth and seventh hour after operation.
(3) for gas pain insert rectal tube; inject eight ounces fluid (warm normal salt solution or three ounces of milk and three ounces of molasses, or eight ounces soap suds) unless otherwise ordered.

Cathartics.—Fifty hours after the operation administer mild chlorid (hydrargyrum chloridum mite) ii grains, in fifty-two hours one teaspoonful of $MgSO_4$ and in fifty-six hours a second teaspoonful of $MgSO_4$. If in sixty hours subsequent to the operation no bowel movements occur administer iv teaspoonfuls of castor oil (saccharated) every three hours until defecation occurs.

Proctoclysis.—Proctoclysis should be administered to each peritonotomy subject unless otherwise ordered, eight ounces per hour (exceptions arise in cases where some segments of the intestine may be perforated, as rectum or sigmoid.)

Post-operation visceral drainage should begin seventy-two hours subsequent to the peritonotomy.

Directions for post-operation visceral drainage:—Before meals place together on the tongue one-fourth white tablet with one-half brown tablet and drink a glass full (eight ounces) of hot water.

Between meals (that is at 10 a.m., 3 p.m., and 9 p. m.) place together on the tongue one-fourth white tablet with one-half brown tablet and drink a glass (eight ounces) of fluid.

Position of the Patient.—The most favorable position for the patient is on the dorsum. A pillow of moderate dimension should be placed under the head. A pillow under the knees relieves pain in the abdomen. The patient may turn on either side a few hours subsequent to the operation. The reclining position may favor checking the absorption of fluid in the enteronic area—the dangerous area of peritonitis. Unleis otherwise ordered vaginal hysterectomies may sit or walk on the twelfth day, peritonotomies on the fourteenth day.

MEDICAL MISCELLANY

THE enormous amount of one hundred and twenty million gallons of industrial alchohol was consumed for lighting, heating and other purposes in Germany during the past year. One of the Emperor's palaces in Berlin is lighted entirely by alcohol and the use of alcohol in that country is largely displacing gasoline and petroleum.

WHEN ordinary cow's milk is acted upon by human gastric juice it forms a firm curd which is broken up and digested with great difficulty; human milk, however, forms a finely divided curd, which is readily acted upon by the digestive juices. These facts, in part at least, explain why it is that cow's milk is not easily assimilated by infants and by adults effected with digestive disorders.

THE Gulf Stream is well described as a river in the bosom of the ocean. Its banks and its bottom are of cold water, while its current is of warm; it takes its rise in the Gulf of Mexico, and empties itself into the Arctic Sea. The Gulf Stream is more rapid than the Amazon, more impetuous than the Mississippi, and its volume more than 1,000 times greater. Its waters are of an indigo blue, and the line of junction can be easily marked by the eye.

THE recent epidemic of hydrophobia in Pennsylvania rendered necessary the quarantining of three counties in the western part of that commonwealth. More than one hundred persons had been bitten by rabid dogs. One death has already occurred and the Pittsburgh Pasteur Institute is caring for sixteen dangerously ill persons, while twenty more were on the waiting list at last account. Over five hundred dogs have been killed in the counties subjected to quarantine.

AT the recent meeting of the Missouri State Anatomical Board in Jefferson City, provision was made authorizing the Secretary of the State Anatomical Board to furnish dissecting material so far as possible to those county societies who may desire material in connection with their post-graduate class work. For details in regard to this matter, inquiries should be addressed to Dr. C. M. Jackson, Secretary, State Anatomical Board, Columbia, Mo. The officers of the Board for the coming year, elected at the recent meeting, are as follows: President, Howard Hill, Kansas City; vice-president, D. M. Shoemaker, St. Louis; secretary, C. M. Jackson, Columbia; treasurer, R. J. Terry, St. Louis.

THE MEDICAL FORTNIGHTLY

Issued Tenth and Twenty-Fifth of Every Month
Edited By
DR. THOS A. HOPKINS
And the Following Associates:
JOHN McH. DEAN, M. D., Surgery.
ROBT. H. DAVIS, M. D., Dermatology.
W. E. FISCHER, M. D., Ophthalmology.
R. B. H. GRADWOHL, M. D., Pathology.
A. F. KOETTER, M. D., Oto-Laryngology.
O. E. LADEMANN, M. D., Internal Medicine.
W. H. VOGT, M. D., Gynecology.
O. H. BROWN, M. D., Tuberculosis.
Editorial Rooms, Suite 319-321 Century Building, St Louis, Mo.

EDITORIAL

Vacation Time.

We are more and more impressed as the years pass with the very evident fact that there is no occupation which a man can pursue which will not wear him out if he fails to make for himself occasional periods of change and relaxation. It is not a matter of climate or temperature, it is the working along a worn groove, with each day like the one before it, that makes men grow old and which saps enthusiasm. The men who take vacations seem to be the men who are really doing things. A month or two months absence during the twelve of each year may add an income if by taking it the man can bring back with him a personality bouyant with energy, eager for work. Men have been known, in medicine, to kill a good practice by too frequent absence, but more often have they killed it by too close application to it. It is an easy matter to look over the profession of any localityand pick out the men who do the work, and when you have picked them it is a safe wager that they are men who find time to attend their State meeting and the meeting of the A. M. A., and also take no less than a month for recreation during July and August. The physician who can never get away from his work, or thinks that he never can, weakens his effectiveness and shortens his life. When you have discovered that you are weakening both your physical and financial revenue by thinking that your presence is essential to the weal of your community on every day of each year; when you have discovered that the occasional absence adds to your physical energy, and increases your clientelle's faith in you, you are hitting the right track. It is sometimes a good thing to be missed. Some people never know how to appreciate their regular physician until they have wanted him and been unable to get him. We have repeatedly heard physicians state that the return from an absence of more or less length always meant a decided increase in business and better business. But the greatest return you will get from change will be in your own better feelings, you will feel yourself, you will have energy to go at your work and find in it a pleasure which you would never know but for the rest from it; your increased effectiveness will be a consequence of this rather than a direct result. Change and recreation are essential to good work. A fortnight at Rochester is a good thing, a month spent at the clinics of any of the great medical centers is a splendid thing, but these are so in the line of your daily work that they must not be confused with the idea of a vacation; vacation means change, a rest of mind and body for the daily routine; this means for the city man, the country; for the country man it may mean the city, at any rate it means a complete change with as little medicine as can be managed. The complete change will make a better man of you; you can prove the statement by trying it.

The Management and Control of Our Municipal Hospitals.

For some weeks past the local profession has been exercised over an attempt toward a realization of much long talked-of change in the conduct of our municipal hospitals. A bill covering all the details needed to put our hospitals on a plane with the best had been prepared, without the blare of trumpets, but with the aid of minds of mature and deliberate judgment, and was introduced into the municipal assembly before the most of us knew that it was doing. At first there was considerable opposition talked. Why this secrecy? What's there in it for who? And while there are still those who are reluctant to grant that those who fathered the move were prompted by disinterested motives (it is doubtful if such men ever fail to question motives), it is nevertheless a fact that a large part of the profession has come around to the central idea of the scheme of the bill and its ultimate enactment, or the enactment of its intent in so far as radical changes go seems a certainty. Had the profession been more nearly united there is no question but that the municipal assembly would have acted promptly and favorably. But the delay has been to good purpose in that

it has worked to the education of the profession and has brought them to a general agreement on the proposition, even though they may question some of its details. The bill itself is too voluminous for reproduction here; the following is an outline of its purposes and some of the arguments for its support as outlined by the Bulletin of the St. Louis Medical Society:

"The vital element in this bill is the creation of a commission made up of the mayor (ex-officio) and six other members, all appointed by the mayor, one of the six being the Hospital Commissioner, who stands in relation to the hospital system, much as the present Health Commissioner stands in relation to municipal sanitary affairs. It is a matter of no small interest, that a radical change in the management of our hospitals has been found to be possible through the mechanism of ordinance making, despite the fact that the opinion has prevailed up to now that charter revision was an essential factor. The present charter of the city of St. Louis provides that the municipal assembly may, by a two-thirds vote, abrogate offices, distribute offices or create new offices; and it is this provision which serves as a basis for the creation of the new hospital department.

"The present bill, in addition to providing for a Hospital Commissoner, and a hospital board, provides for the appointment of a graded resident staff made up of superintendents, resident physicians and surgeons, and a corps of internes. The creation of a visiting staff of specialists is also provided for, and there are provisions regulating teaching within the various institutions. These provisions are framed in terms which definitely centralize responsibility on the hospital board.

"In this connection it is essentially important to draw the distinction that the bill as it stands, is merely an attempt to legalize a process for modernizing our institutions, rather than any effort to formulate plans for providing all the prolix details that enter into hospital management. The first and essential step in the founding of any hospital consists in the creation of a board of directors; these directors in turn provide for the running of the institution. Hitherto, the stumbling block has been the belief that the creation of a board of directors was in direct conflict with the provisions of the city charter.

"The creation of a hospital commission is directly in line with the present day growing sentiment in favor of municipal government by commissions, and the only objection that can be raised to the commission plan is that, as provided for in the bill, it smacks of politics. In so far as the commissioner is appointed by the mayor, politics does enter, but in so far as there are seven appointees, politics as an influence is minimized. It must not be lost sight of, that if these commissioners were elective officers, the dangers that lurk in primary elections and ward politics would be a much more serious political menace than is the shifting of the responsibility of properly caring for the sick poor upon the shoulders of the mayor. It is more than questionable whether there is any power under the sun, other than healthy public sentiment, which can invent a way of absolutely removing our municipal institutions from political influence, as long as our municipal government is constructed as at present.

"This very form of municipal government is under revision by our Board of Freeholders. If the hospital bill passes, then the reconstructed system will furnish most valuable data, to be incorporated in the new charter by the Freeholders. All this means that our institutions will pass from a most undesirable state of management, to a stage improved as far as the exigencies of an antiquated charter will permit of improvement, and thence to a more perfect stage—provided the new charter is accepted. Should the new charter fail of popular acceptance (a possibility not to be lost sight of) we will at least be in the position of advance guaranteed by the present hospital bill.

ST. LOUIS ITEMS.

The Wanderers.—The vacation season has affected the St. Louis profession to an unusual extent this year, and we find ourselves with representatives in all the four corners of the earth. A more than usual number have been attracted to Europe this year, while the Pacific Coast country seems to have proven a close second.

A New "Bulletin."—A new infant has arrived to take its place in the numerous and ever-growing family of "Bulletins." The latest is the "Bulletin of the Municipal Commission on Tuberculosis of St. Louis," a rather top-heavy name for an infant, but Bulletin is getting to be as common as Smith in St. Louis, and it has become necessary to have considerable of an appendage to distinguish one from another. The Tuberculosis Bulletin gives promise of much. The first number is full of matter which is of more than local interest.

Preparations for the Coming School Year.—Our medical schools are in the midst of active preparations for their 1909-1910 session and indications have it that work will be begun with better facilities than were ever before offered students. Rumor that there is to be a change of administrative control of at least one school has as yet failed of confirmation. Anything which purposes an increased excellence will be welcomed by the local profession, and can be certain of generous approval.

Fourth of July at the Dispensaries.—The report of Chief Dispensary Physician Scott to the Board of Health for the week containing the Fourth of July victims, showed an increase in cases treated at the Central Dispensary of nearly 200 over the preceding week and 117 over the corresponding week last year. Altogether 1068 dispensary cases were cared for at the Central. The branch dispensaries also showed a slight increase. No fatal tetanus cases were reported this year as a result of the Fourth.

According to the report of the Public Health and Marine-Hospital Service on May 21, more than one-eighth of all the smallpox in the United States between January 1 and June 1 was reported in Illinois. Of the total of 9,960 cases in the country 1,257 were reported from Illinois, but only 11 of these were found in Cook County.

The Cleveland city council committees have endorsed the resolution of one of the councilmen to add one-half mill to the tax levy for the benefit of charity patients in private hospitals. This is in addition to the one mill for the City Hospital included in the tax ordinance introduced in council recently, and would raise the tax rate 1½ mills for hospital purposes for the coming year. The total levy for both city and private hospitals it is believed would yield approximately $375,000.

The omnibus appropriation bill which passed the Illinois house in June gives the State Board of Health $46,000 for the free distribution of antidiphtheric serum throughout the state. The last general assembly appropriated $30,000 for this purpose. The State Board of Health has already been allowed $4,000 for the free treatment of poor persons said to have been bitten by rabid animals or otherwise in danger from infection from hydrophobia. The appropriations for the State Board of Health have been materially increased.

THE REVIEWER'S TABLE

Books, Reprints, and Instruments for this department, should be sent to the Managing Editor, Century Building, St. Louis.

OSLER'S MODERN MEDICINE: ITS THEORY AND PRACTICE. In Original Contributions by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England, etc. Assisted by Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes. Philadelphia and New York: Lea & Febiger, Publishers, 1907-1909. (Price per volume, cloth, $6.00 net; leather $7.00 net; half morocco $7.50 net.)

The sixth volume of this eminent system meets from every view-point the expectations of the most exacting and reflects credit to those who have taken part in its production. What has been said in the matter of comment concerning the preceding volumes equally applies to this one. There are six parts to this volume and each chapter, of which there are thirty, is represented by one of recognized ability and amply qualified to present the subject in its highest state of development. We feel that the brief comments in this review are far too inadequate to fully justify the merits of the various contributors. Part I embraces a timely and exhaustive discussion on "Diseases of the Urinary System." Representatives of this section are John McCrea who writes an "Introduction to the Diseases of the Kidney" and a chapter on "Malformations of the Kidney, Circulatory Disturbances of the Kidney." A. E. Garrod discusses "Anomalies of Urinary Excretions" and "Uremia." James Herrick presents the different varieties of nephritis and "Amyloid Diseases of the Kidney." Thomas Brown writes three chapters on bacterial invasions of the urinary tract, while Hugh Young elaborates on "Urinary Lithiasis," "Tumors of the Kidney" and Genito-Urinary Diagnosis." Part II, comprising "Diseases of the Ductless Glands," emanates entirely from the pen of George Dock, who is the most extensive contributor to this volume. The four chapters respectively discussing "Diseases of the Adrenal Glands;" "Diseases of the Thyroid Gland;" "Athyrosis, Athyrea, Athyroidism, Hypo thyroidism, Cretinism, Myxedema;" and "The Pituitary Body, Acromegaly, Progeria," are written in a clear and concise manner, giving the reader an excellent conception of the part played by these ductless glands in both health and disease.

Part III embodies "Diseases of Obscure Origin." Under this caption are incorporated excellent and timely chapters on "Hodgkins' Disease" by Warfield Longcope; "Arthritis Deformans," by Thomas McCrea; "Osteomolacia," by George Dock;

and "Astasia-Abasia, Adiposis Dolorosa," by Daniel McCarthy.

Part IV on "Diseases of the Muscles" is represented by Walter Steiner, who writes chapters respectively on "Myositis and Myotonia Congenita," while Daniel McCarthy discusses the chapter on "Myasthenia Gravis."

Part V considers "Vasomotor and Trophic Disorders." Contributors to this section are William Osler, who writes on "Reynaud's Disease," "Angioneurotic Edema" and "Diffuse Scleroderma," and Charles Emmerson on "Achondroplasia, Hypertrophic Pulmonary Osteoarthropathy, Paget's Disease," etc.

Part VI is devoted to "Medical Aspects of Life Insurance," and written by no less an authority than Lyman Green. Not only will this section be useful to the medical examiner of insurance companies, but a guide to the general practitioner as well.

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Vol. XI. No. 2, June, 1909. Octavo, 377 pages, with 52 illustrations. Philadelphia and New York: Lea & Febiger, Publishers. (Per annum, in four paper-bound volumes, containing 1,200 pages, $6.00, net; in cloth, $9.00, net.)

The June issue of Progressive Medicine deals with subjects of exceptional importance. W. B. Coley's large experience in the whole field of hernia enables him to write with authority, and renders every line of his article useful and informing. Of especial interest is the section on hernia and undescended testicle. E. M. Foote writes on the broad subject of abdominal surgery, and adequately covers all the many recent advances. Hirschsprung's disease, which has latterly been attracting much attention, and the surgery of pancreas, are handled in a manner deserving particular notice. For several years J. G. Clark's review of the cancer problem has been the most noteworthy contribution in English medical literature towards the ultimate solution of this great question. His present article is no exception. It alone and apart from all the valuable accompanying papers is well worth the year's subscription. Alfred Stengel has summarized progress in diseases of the blood and ductless glands in a most interesting manner. His section on diabetes mellitus, a subject much to the front just now, is full of value to the general medical reader. Edward Jackson closes with a review of the year's developments in ophthalmology.

In surgical shock strychnine and alcohol aggravate the condition.—Jour. Am. Surg.

MEDICAL PROGRESS

Comprising the Regular Contributions of the Fortnightly De partment Staff.

INTERNAL MEDICINE.

O. E. LADEMANN, M. D.

The Value of Roentgen Rays in Thoracic Lesions.—Boggs (New York Medical Journal, May 8, 1909) bases the following remarks on a study of more than eighty patients whom he has examined for pulmonary tuberculosis. He says the extent of the disease is more accurately determined by the X-ray than by the physical findings alone. In doubtful cases the rays often afford sufficient information to make an accurate diagnosis. The rays are a useful method of recording the lesions and of determining the progress made by treatment. The radiogram records nothing but variations in density and leaves the etiologic factors to be determined by other clinical methods. Frequently, when physical signs were present in one side the radiogram would show infiltration in both lungs. The Roentgen rays are also of value in diagnosticating mediastinal tumors.

Value of the Measurements of Chest Expansion and Lung Capacity.—Goodall and Belknap (Archives of Internal Medicine, April, 1909) conclude their paper on the subject as follows: The measure of chest expansion has no constant direct relation to the lung capacity, and by itself is of comparatively little value as one of the methods of physical examination. Large measures only indicate good development of the muscles which expand the chest. Owing to individual variations, normal standards cannot be adopted. It is probable, however, that an expansion of from 2 to 2.5 in chest will permit the maximum capacity under ordinary conditions of health. In normal individuals the measure of lung capacity varies directly with the muscular development, provided the individual breathes properly. Erroneous conclusions may be drawn from spirometer readings unless special attention is given to the method of breathing. Capacities of 190 cubic inches, and possibly less, are consistent with normal lungs. With both measurements large values only indicate good muscular development. Low values indicate inferior muscular development or improper breathing. In suspected pulmonary disease, very little, if any, additional aid in diagnosis is obtained by these measurements. The only positive value of these measurements is the aid in determining

whether or not the person is breathing properly, and whether or not the muscles of respiration are properly developed.

The Blood in Rickets.—Findlay (The Lancet, April, 24, 1909) summarizes his investigations as follows: 1. In active and uncomplicated rickets anemia is not the rule, but is to be regarded as exceptional, and when it occurs is due to adventitious causes. 2. On the contrary, in rachitic children the amount of hemaglobin and the number of red blood cells in the series examined are notably in excess of the normal average. 3. The red blood corpuscles, as a rule, vary more in size than in normal individuals of similar ages, but otherwise there is no abnormality. 4. Nucleated red cells, polychromatophiles, and myelocytes are often of the rarest occurrence. 5. In rickety subjects there is little characteristic change as far as the leucocytes are concerned. They may be normal, slightly increased, or even diminished in number. The mononuclears more frequently than the polymorphs show an absolute increase in the number per cubic millimeter.

Pernicious Anemia. — French (Clinical Journal, London, May 12, 1909) holds that slight evening pyrexia is seldom absent in pernicious anemia cases that are decidedly ill. Pigmentation within the mouth, of precisely similar character to that seen in Addison's disease, may occur in pernicious anemia cases treated with arsenic. The spleen is to be felt in about one-third of the cases and is really enlarged. The nerve symptoms are not at all uncommon in pernicious anemia. The color index of the blood, though typically higher than when an advanced stage of the disease has been reached, is not always or continually high especially during a period of improvement in the patient's condition, when it may be actually low. Pernicious anemia, as we know it, is very possibly only a late and almost incurable stage of a disease that it is to be hoped will some day be recognizable early enough to be cured.

Nausea.—Boas (Berliner klinische Wochenschrift, No. 24, 1909) says that the picture of nausea presents itself as follows: The patient complains of a more or less continuous nauseated feeling which begins, as a rule, in the early morning, increasing during the day, and subsiding at night, although sleep is not always undisturbed. Associated with the nausea may also be a loss of appetite which may lead to consecutive disturbances in nutrition. The appetite, however, may remain undisturbed. The state of the stomach, whether full or empty, as well as the quality of the food has little influence. Continuous lying on the back favorably influences the nausea. Drugs, however, are not reliable.

More than a ton and a quarter of quinin was used by the department of sanitation in the Canal Zone for the prevention of malaria during 1908. It is dispensed free to anyone who applies for it, whether it be an employe of the commission or not.

Medical Inspection of Schools in Sheffield, England.—From the address of Dr. Ralph P. Williams, read at the sessional meeting of the Royal Sanitary Institute at Sheffield, March 12, 1909, and published in the institute's journal for May, we make the following excerpts: "The first condition which strikes the medical inspector in examining the children in a poor district school is the large number who are verminous. This condition may affect either head or clothing, or both. This is apparently the most easily prevented of all preventable diseases, but in practice the question is not so simple. The teacher is our first helper in remedying the condition, and by constant attention may achieve a great deal, aided by suitable cards to be sent home to parents (these cards containing instructions as to cleansing). The time of the teacher is, however, fully occupied, and it is quite impossible for her to obtain anything approaching complete success. The school nurse is indispensable, and at present this work of obtaining treatment for such conditions is a large part of her duties * * * In one school, on September 1st, 194 girls were examined by the nurse; of these, 4 were found to be clean, 102 had nits only, 33 head lice and nits, and 55 body lice and nits. As a result of the nurse's visits and instructions, in two months' time the number of clean children increased from 4 to 43, whilst the verminous children numbered 105, 10, and 16, respectively. On examining the same school after the Christmas holidays, the conditions were found to have partially recurred; the figures then being 4 clean (girls with short hair), 138 nits only, 13 head lice and nits, 37 body lice and nits. The verminous children were, however, in a much more cleanly state than they were at the beginning of the previous term." We have no "poor schools" in this country, as such, but the children of the poor attend the public schools, in fact, in most states, their attendance is compulsory, yet we are certain alike deplorable neglect on the part of parents could not find a parallel in America.

TO THE FRONT SAINT LOUIS

THE MEDICAL FORTNIGHTLY

A Cosmopolitan Biweekly for the General Practitioner

The Medical Fortnightly is devoted to the progress of the Practice and Science of Medicine and Surgery. Its aim is to present topics of interest and importance to physicians, and to this end, in addition to a well-selected corps of Department Editors, it has secured correspondents in the leading medical centers of Europe and America. Contributions of a scentific nature, and original in character, solicited. News of Societies, and of interesting medical topics, cordially invited.

Advertising forms close on the first and fifteenth of each month. Time should be allowed to submit proof for correction. Advertising rates on application.

Remittances and business communications should be addressed to the Fortnightly Press Co.

Subscription, $2.00 a year, in advance, including postage to any part of the United States, Mexico and Canada. Postage to foreign countries in the Universal Postal Union, including Newfoundland, $1.00 a year additional. Entered at the St. Joseph postoffice as second-class matter.

Subscriptions may begin at any time; volumes end with June and December.

Contributors should understand that corrected typewritten copy is essential to clean proof and prompt publication, and is much more satisfactory than manuscript. Original articles should be as condensed as justice to the subject will allow.

Editorial offices in St. Louis and St. Joseph, where specimen copies may be obtained, and subscriptions will be received.

Contributions and books for review should be addressed to the Managing Editor, 319 and 320 Century Building, St. Louis, Mo.

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF THE MISSOURI VALLEY AT COUNCIL BLUFFS, SEPTEMBER 9-10, 1909.

The annual meeting of this progressive society will, as usual, be held in the city of its birth, Council Bluffs, Iowa, on Thursday and Friday, September 9 and 10. Already the scientific program is assuming attractive proportions, and it is evident that another successful meeting will be enjoyed by those who attend. The secretary announces that three interesting addresses will be given on the evening of the first day, as follows: President's address, Dr. C. B. Hardin, Kansas City; address in Medicine, Dr. Alfred C. Croftan; and Dr. Jno. E. Summers will deliver a timely address on "Cancer a Constitutional Disease; Its Rational Treatment." The last two above-named addresses will be open for discussion. The arrangements are in the hands of a committee appointed by the local county society, of which Dr. V. L. Treynor is chairman. The secretary, Dr. Chas. Wood Fassett, will be pleased to send program and full information to those desiring same.

INTERNATIONAL MEDICAL CONGRESS, AUGUST 29 TO SEPTEMBER 4.

Dr. Emil Grosz, secretary-general of the Congress, has notified the American Committee that a statue of George Washington stands in a suburban park near Budapesth, having been erected by Hungarian countrymen who live in the United States, out of compliment to their adopted country. Dr. Grosz suggests that the American party should select a time for visiting the monument, and the matter will no doubt be arranged to the satisfaction of the American delegates and with appropriate ceremonies.

Those who desire membership in the Congress may send their application to Dr. J. H. Musser, chairman American Committee, Philadelphia, accompanied by a fee of $5.00, and professional card.

For the benefit of those who contemplate attending this Congress, we would state that ample arrangements have been made for hotel accommodations in Budapesth, a large number of rooms having been engaged a year or more ago, in the Hotel Hungaria, for the members of the American party. Reservation should be made this month, to insure good rooms. Those who join this party will have no worry as to details, a competent guide being in constant attendance. The cost of the entire trip including a week's board in Budapesth, meals en route, railroad fare, tips, first-class steamship both ways, carriages for sight-seeing, visiting hospitals; forty-one days, $395.00. Sail from New York, August 12. Full information and itinerary may be obtained by addressing Dr. Chas. Wood Fassett, secretary Medical Society of the Missouri Valley, care Hotel Ostend, Atlantic City, N. J., until August 10, and Grand Hotel, New York City, from August 10 until ship sails.

The New Grand Hotel has been chosen headquarters in New York City, on account of its central location, 31st and Broadway, where members of the party may meet and make final arrangements for the trip. Programs of the Congress and applications of membership may be obtained here; while Dr. Fassett will be pleased to arrange sight-seeing trips for those who may wish to spend a day or two in New York. Rooms should be engaged in advance.

A Delightful Revelation

The value of senna as a laxative is well known to the medical profession, but to the physician accustomed to the ordinary senna preparations, the gentle yet efficient action of the pure laxative principles correctly obtained and scientifically combined with a pleasant aromatic syrup of Californian figs is a delightful revelation, and in order that the name of the laxative combination may be more fully descriptive of it, we have added to the name Syrup of Figs "and Elixir of Senna," so that its full title now is "Syrup of Figs and Elixir of Senna."

It is the same pleasant, gentle laxative, however, which for many years past physicians have entrusted to domestic use because of its non-irritant and non-debilitating character, its wide range of usefulness and its freedom from every objectionable quality. It is well and generally known that the component parts of Syrup of Figs and Elixir of Senna are as follows:

Syrup of Californian Figs..... 75 parts
Aromatic Elixir of Senna (manufactured by our original method, known to the California Fig Syrup Co. only).... 25 parts

Its production satisfied the demand of the profession for an elegant pharmaceutical laxative of agreeable quality and high standard, and it is, therefore, a scientific accomplishment of value, as our method ensures that perfect purity and uniformity of product required by the careful physician. It is a laxative which physicians may sanction for family use because its constituents are known to the profession and the remedy itself proven to be prompt and reliable in its action, acceptable to the taste and never followed by the slightest debilitation.

ITS ETHICAL CHARACTER.

Syrup of Figs and Elixir of Senna is an ethical Proprietary remedy and has been mentioned favorably, as a laxative, in the medical literature of the age, by some of the most eminent living authorities. The method of manufacture is known to us only, but we have always informed the profession fully, as to its component parts. It is therefore not a secret remedy, and we make no empirical claims for it. The value of senna, as a laxative, is too well known to physicians to call for any special comment, but in this scientific age, it is important to get it in its best and most acceptable form and of the choicest quality, which we are enabled to offer in Syrup of Figs and Elixir of Senna, as our facilities and equipment are exceptional and our best efforts devoted to the one purpose.

California Fig Syrup Co.,

Addresses:

San Francisco, Cal.
U. S. A.

Louisville, Ky.

New York, N. Y.

London, Eng.

MEDICAL MEMORANDA.

The fever of pneumonia, Anders says, is a temporary affair, and instead of being hurtful, may prove beneficial, since it furthers tissue metabolism, and this aids in destroying the specific poison.—Dunkley, Va. Med. S. M.

Careful and Observing Clinicians throughout the country have fully demonstrated the power and efficacy of Burnham's soluble iodine in all fields where the therapy of iodine is indicated. No imitation has succeeded in procuring the same satisfactory results, nor is any preparation or compound of iodine among the many now on the market effective in so small a dose. Why is this? Because upon entering the system every atom of iodine contained in this product is immediately utilized by the human economy. There is no waste, no unnecessary elimination, as is the case with the iodides, and there is no need of an alkaline salt or other objectionable vehicle to convey it to the system. It is given on the empty stomach and does not produce irritation. It possesses all the properties of iodine in an enhanced degree and is available in many fields where the iodides would be useless.

The Treatment of Carbuncle and Kindred Conditions.—When I find a case of carbuncle I investigate it just as I would any other ailment, correcting morbid conditions, both systemic and organic, by the use of proper remedies. Abbott's "Clean out, clean up, and keep clean" is the motto, and salitha to effect with the W-A intestinal antiseptic (sulphocarbolates comp. Abbott) q. s. are the remedies of choice. While doing this, saturate with Abbott's calcium sulphide, an unexcelled product, and apply to the carbuncle a saturated solution of menthol compound (Abbott)—at least four tablets to one pint of water. Patients compare it to pouring water on a fiery coal. The pain is relieved immediately and does not return, and that is the desideratum with the patient. That's all. Only keep it up till resolution is complete. With a little common sense, a good supply of the alkaloidal granules and tablets we can control everything controllable readily—but quality of medicine is of great importance. That's what Abbott gives us.—M. W. C. FRAZIER, Carrizo Springs, Texas.

The Importance of Nutritive Repair, in the treatment of all bodily disorders, associated with loss of weight and general vitality, is too patent to need more than passing emphasis. The question of how best to bring about such a desirable result is, however, one that the physician is daily called upon to answer, and upon his ability to "build up" his more or less devitalized patients will largely depend his success in the treatment of chronic affections. Taking, for example, a patient suffering from pulmonary tuberculosis in the incipient or secondary stage, what are the approved measures to adopt to bring about improvements of nutrition and a consequent gain of weight and strength? All phthisio-therapists now agree that the therapeutic trinity of salvation for the tuberculous invalid is composed of: 1—Fresh, pure air, in abundance, both night and day; 2—A properly balanced ample supply of nutritious food; 3—Plenty of rest, especially during the febrile period. While medication is useless, unless the patient it properly fed, "ventilated" and rested, as above referred to, there is no doubt that intelligent medical treatment, designed to promote nutrition, is indicated in a majority of cases. If the tuberculous patient has been neglected, for any length of time, some degree of anemia is almost always present. In such cases, an absolutely bland, non-irritant, readily tolerable and assimilable form of iron, such as exists in pepto-mangan (Gude), cannot be but of benefit, by stimulating the formation of erythrocytes and hemoglobin, and thus augmenting the oxygen-bearing potency of the blood. Metabolic interchange is thus quickened, better absorption and assimilation of blood follows, and as a consequence, nutritive repair is encouraged and hastened.